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پوستر

Efficiency of 99mTc-Tetrofosmin scans in the diagnosis of thyroid nodules

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Introduction: The purpose of the current study was to determine whether delayed 99mTc-Tetrofosmin scintigraphy is useful in differentiating malignant from benign thyroid nodules.

Methods & materials: 52 patients found to have a cold solitary thyroid nodule on 99mTc-pertechnetate scintigraphy were included in this study. All patients underwent a single-injection dual-phase (30 min and 120 min) 99mTc-Tetrofosmin scan. All patients underwent a clinical examination, 99mTc-pertechnetate scan and fine-needle aspiration cytology. The diagnosis efficiency of 99mTc-Tetrofosmin scans in the characterization of benign and malignant solitary thyroid nodules is obtained.

Results: 13 from 15 patients with thyroid cancer showed delayed retention of radiotracer (on 120 min images as compared to the initial 30 min image). 36 from 37 patients harboring benign solitary nodules showed significant washout of tracer on delayed images. Sensitivity, specificity, positive predictive value and negative predictive value of delayed 99mTc-Tetrofosmin scintigraphy were found to be 86.6, 97.2, 92.8 and 94.7%, respectively.

Conclusion: Our findings indicate that delayed 99mTc-Tetrofosmin scintigraphy is a highly sensitive and specific method for characterizing solitary thyroid nodules.